

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/28/11 has been entered.

Response to Arguments

2. Applicant's arguments filed 7/28/11 have been fully considered but they are not persuasive.

The Applicant argues on page 19 of the response in essence that:
When the user selects the print job exception attributes in Perry '190, only print job exception attributes, which are different from the print job level properties, are displaying according to explanations, for example Fig. 4 and column 5, lines 46-51.

a. While the print job excretion page window 310 of Fig. 5 only displays attributes that are different than the print job level properties, Perry '190 discloses that a user can use the add exception button 330 to display the print job exceptions attributes window in Figs. 6A-D (col. 6, lines 5-21) (col. 7, lines 18-45).

The Applicant argues on pages 19 and 20 of the response in essence that:
The Office Action does not cite to a prior art reference where the facts asserted to be well known are capable of instant and unquestionable demonstration as being well-known.

b. Based on the disclosure of Perry '190, it would have obvious to a person of ordinary skill in the art to display the current print attributes for the entire print data in the partial setting screen. The motivation for doing so would have been to avoid requiring that a user must manually reenter every print attribute even when a change for only one attribute is desired. The system of Perry '190 includes at least multiple attributes associated with paper stock like size, color, type, weight, coating, finish grain, lightness, contrast, saturation, color cast, sides of the paper that will be printed, and image shifting on paper sides. Considering the number of print job attributes, it would be unreasonable to require a user to manually input each print job attribute whenever they make a print job exception. The time required for a user to manually input each print attribute would make the system of Perry '190 functionally inoperative. While an analysis of obviousness always depends on evidence that supports the required Graham factual findings, it also may include recourse to logic, judgment, and common sense available to the person of ordinary skill that do not necessarily require explication in any reference or expert opinion. *Perfect Web Technologies, Inc. v. InfoUSA, Inc.*, 587 F.3d 1324, 1329 (Fed. Cir. 2009).

The Applicant argues on page 20 of the response in essence that:

The Office Action is a conclusion of obviousness based on an improper hindsight reconstruction of Perry '190 based on Applicant's disclosure.

a. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 4, 7, 9, 13, 16, 33-35, 45, 47-50, 52-55 and 57-68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Perry Patent No. 7,159,190 in view of Shin Patent 6,351,320.

Referring to **claim 1, 7 and 13**, Perry '190 discloses a printing control method executed in an information processing apparatus which has a printer driver to generate

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print data which a printing apparatus can process, said printing control method comprising:

a first displaying step of displaying an entire setting screen to set an entire print attribute to be applied to the entire print data (Fig. 5, col. 5, lines 20-30, print job properties can be created that will apply to the entire print job);

a changing step of changing a first print attribute which is an initial value of the entire setting screen displayed in the first displaying step for a second print attribute (col. 5, lines 15-30, the print job level properties can be edited at the job level in step 4000 which apply to the entire print job);

a second displaying step of displaying a partial setting screen including (i) a first designation field to set a partial print attribute to be applied to a part of the entire print data (Figs. 6A-D, col. 7, lines 18-45, print job exceptions attributes window allows user to enter print job exception attributes such as stock type), (ii) a second designation field to designate a page as the part of the entire print data to which the partial print attribute is applied (Figs. 6A-D, col. 6, lines, 34-40, print job exceptions attribute window allows a user to specify a page range); and

a generating step of generating the print data based on the entire print attribute and the partial print attribute, (col. 2, lines 31-40, prints print job that includes print job level properties and print job exception attributes).

Perry '190 further discloses wherein a print attribute for the entire print data is displayed on the partial setting screen before a user sets the partial print attribute (Figs. 6A-D, col. 7, lines 18-45, print job exceptions attributes window allows user to enter

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print job exception attributes such as stock type), but does not disclose expressly wherein the partial setting screen displays the second print attribute for the entire print data that has been changed from an initial value.

At the time of the invention, it would have obvious to a person of ordinary skill in the art to display the current print attributes for the entire print data in the partial setting screen. The motivation for doing so would have been to avoid requiring that a user must manually reenter every print attribute even when a change for only one attribute is desired. The system of Perry '190 includes at least multiple attributes associated with paper stock like size, color, type, weight, coating, finish grain, lightness, contrast, saturation, color cast, sides of the paper that will be printed, and image shifting on paper sides. Considering the number of print job attributes, it would be unreasonable to require a user to manually input each print job attribute whenever they make a print job exception. The time required for a user to manually input each print attribute would make the system of Perry '190 functionally inoperative.

Perry '190 does not disclose expressly providing the setting screens by a printer driver.

Shin '320 discloses wherein the setting screens are provided by the printer driver (col. 2-3, lines 63-67, 1-14, The memory-saving printer driver itself includes a User Interface segment having a graphical display for selecting output image aspects).

At the time of the invention, it would have obvious to a person of ordinary skill in the art to provide setting screen by a printer driver. The motivation for doing so would have been to efficiently incorporate print setting functionality by providing it into a

standardized driver program. Therefore, it would have been obvious to combine Shin '320 with Perry '190 to obtain the invention as specified in claims 1, 7 and 13.

Referring to **claims 4, 9 and 60**, Perry '190 discloses a setting step of setting the entire print attribute including a type of sheet, print quality and color adjustment (col. 4, lines 22-33, properties for an entire print job include paper stock, printer output, and page color).

Referring to **claims 16, 61 and 62**, Perry '190 discloses when the partial print attribute is not set, print data to print a printed material is generated in which the entire print attribute is reflected in all pages of the print data, and

when the partial print attribute is set, print data to print a printed material is generated in which (i) both the entire print attribute and the partial print attribute are reflected in a designated page designated using the partial setting screen, and (ii) the entire print attribute is reflected in pages other than the designated page (col. 2, lines 31-40, prints print job that includes print job level properties and print job exception attributes).

Referring to **claims 33, 34 and 35**, Perry '190 discloses wherein the partial setting screen including a plain paper based entire print attribute is displayed in the second display step when the plain sheet is designated in the field to designate type of sheet of the entire setting screen (col. 7, lines 18-45, exception page template 317 of Fig. 6A displays paper stock type as plain)

Referring to **claims 45, 50 and 55**, Perry '190 discloses wherein the first designation field is a field for designating a type of sheet (col. 7, lines 18-45, In FIG. 6A,

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the stock tab 318 has been selected to better edit various attributes associated with paper stock like size, color, type, weight, coating, finish and grain).

Referring to **claims 47, 52 and 57**, Perry '190 discloses wherein the first designation field is a field for designating a print quality (col. 7, lines 18-45, In FIG. 6B, the image quality tab 320 has been selected to better edit various attributes associated with lightness, contrast, saturation and color cast).

Referring to **claims 48, 53 and 58**, Perry '190 discloses wherein the first designation field is a field for designating a color adjustment (col. 7, lines 18-45, In FIG. 6B, the image quality tab 320 has been selected to better edit various attributes associated with lightness, contrast, saturation and color cast).

Referring to **claims 49, 54 and 59**, Perry '190 discloses wherein the first designation field is a field for designating a gray scale (col. 7, lines 18-45, In FIG. 6B, the image quality tab 320 has been selected to better edit various attributes associated with lightness, contrast, saturation and color cast [FIG. 6B include a "Print As Grayscale" option]).

Referring to **claims 63, 64 and 65**, Perry '190 discloses a reception step of receiving through the partial setting screen an instruction for setting a new partial print attribute to a page other than the designated page after the partial print attribute for the designated page in the second designation field has been set(Figs. 6A-D, col. 6, lines, 34-40, print job exceptions attribute window allows a user to specify a page range).

Perry '190 further discloses wherein a print attribute for the entire print data is displayed on the partial setting screen displayed before the new partial print attribute to

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be set to the page other than the designated page is received from the user (Figs. 6A-D, col. 7, lines 18-45, print job exceptions attributes window allows user to enter print job exception attributes such as stock type), but does not disclose expressly wherein the partial setting screen displays the second print attribute for the entire print data that has been changed from an initial value.

At the time of the invention, it would have obvious to a person of ordinary skill in the art to display the current print attributes for the entire print data in the partial setting screen. The motivation for doing so would have been to avoid requiring that a user must manually reenter every print attribute even when a change for only one attribute is desired. The system of Perry '190 includes at least multiple attributes associated with paper stock like size, color, type, weight, coating, finish grain, lightness, contrast, saturation, color cast, sides of the paper that will be printed, and image shifting on paper sides. Considering the number of print job attributes, it would be unreasonable to require a user to manually input each print job attribute whenever they make a print job exception. The time required for a user to manually input each print attribute would make the system of Perry '190 functionally inoperative. Therefore, it would have been obvious to modify the system of Perry '190 to obtain the invention as specified in claims 63, 64 and 65.

Referring to **claims 66, 67 and 68**, Perry '190 discloses a step of storing the second print attribute set using the entire print setting screen (col. 4, lines 22-33, the print job property level properties section 510 can store any information about print job level programming for selecting properties for an entire print job) and the partial print

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attribute for a designated page (col. 4, lines 34-53, The print job exception attributes section 520 of the memory 500 can store information such as an exception page ranges, paper size, paper color, paper drill information, paper type, paper weight information, information regarding which paper sides will be printed, paper side one shift information and paper side two shift information), wherein difference between the second print attribute and a print attribute set using the partial print setting screen is stored as the partial print attribute to be applied to the designated page (col. 5, lines 40-59, in step 5020, the operation displays only print job exception attributes that are different that the print job level properties that were defined in step 4000).

4. Claims 5, 17, 46, 51 and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Perry Patent No. 7,159,190 and Shin Patent 6,351,320 as applied to claim 1 above, and further in view of admitted prior art.

Referring to **claim 5**, Perry '190 discloses print data, but does not disclose expressly wherein the print data is bitmap data.

Official Notice is taken that it is well known and obvious to a person of ordinary skill in the art to output print data as a bitmap (See MPEP 2144.03). The motivation for doing so would have been to utilize a conventional print job format that does not require format conversion at the printer. Therefore, it would have been obvious to combine well known prior art with Perry '190 to obtain the invention as specified in claim 5.

Referring to **claim 17**, Perry '190 discloses the setting screen and the partial setting screen but does not disclose expressly wherein the screens are provided by the printer driver.

Official Notice is taken that it is well known and obvious to a person of ordinary skill in the art to provide a print user interface via a printer driver (See MPEP 2144.03). The motivation for doing so would have been to utilize the same program for customizing and formatting print data, thus reducing program conflicts. Therefore, it would have been obvious to combine well known prior art with Perry '190 to obtain the invention as specified in claim 17.

Referring to **claims 45, 50 and 55**, Perry '190 discloses the first designation field, but does not disclose expressly wherein the first designation field is a field for designating a sheet feeding method.

Official Notice is taken that it is well known and obvious to a person of ordinary skill in the art to designate a sheet feeding method. The motivation for doing so would have been to allow a user to select an optimal source for feeding paper to the printer. Therefore, it would have been obvious to combine well known prior art with Perry '190 to obtain the invention as specified in claims 45, 50 and 55.

5. Claims 15, 21 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Perry Patent No. 7,159,190 and Shin Patent 6,351,320 as applied to claims 1, 7 and 13 above, and further in view of Iwase Patent No. 6,724,492.

Referring to **claims 15, 21 and 27**, Perry '190 discloses wherein the partial setting screen is displayed in response to a designation inputted when one of the plurality of settings screens is displayed (col. 6, lines 34-40, user can create a new exception by using the "add exceptions" button).

Perry '190 does not disclose expressly wherein the setting screen has a plurality of tabs.

Iwase '492 discloses the entire setting screen has a plurality of tabs (Fig. 19, col. 12, lines 41-53, menu has a sort, double-sided print, copy, density saturation, and color balance tabs).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to provide a setting screen with multiple tabs. The motivation for doing so would have been to provide the user with a multitude of print attributes conveniently organized within tabbed screens. Therefore, it would have been obvious to combine Iwase '492 with Perry '190 to obtain the invention as specified in claims 15, 21 and 27.

6. Claims 36-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Perry Patent No. 7,159,190 and Shin Patent 6,351,320 as applied to claims 1, 7 and 13 above, and further in view of Livingston Patent 6,621,590.

Referring to **claim 36, 39 and 42**, Perry '190 discloses designating a type of sheets on the entire setting screen, but does not disclose expressly wherein the setting of the setting screen is displayed on the first designation field as the initial value.

Livingston '590 discloses wherein print attributes designated for the print job are displayed as initial values of the partial print attributes (col. 6, lines 5-13, The user can change the print preview image 68 to correspond to a selected page) (col. 3, lines 35-55, The series of blocks show the user which pages have had the selected feature altered from a default setting and also show which pages of the document have had the selected feature set to the setting of the page corresponding to the print preview image) (col. 6, lines 51-55, User can select Paper Source from list of features).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to set initial exception print settings to the settings of the entire print job. The motivation for doing so would have been to allow the user to select printer options in a compact, organized and user-friendly fashion. Therefore, it would have been obvious to combine Livingston '590 with Perry '190 to obtain the invention as specified in claims 36, 39 and 42.

Referring to **claim 37, 40 and 43**, Perry '190 discloses designating a sheet feeding method on the entire setting screen, but does not disclose expressly wherein the setting of the setting screen is displayed on the first designation field as the initial value.

Livingston '590 discloses wherein print attributes designated for the print job are displayed as initial values of the partial print attributes (col. 6, lines 5-13, The user can change the print preview image 68 to correspond to a selected page) (col. 3, lines 35-55, The series of blocks show the user which pages have had the selected feature altered from a default setting and also show which pages of the document have had the

selected feature set to the setting of the page corresponding to the print preview image) (col. 5, lines 18-26, User-selectable features include selection of an output bin).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to set initial exception print settings to the settings of the entire print job. The motivation for doing so would have been to allow the user to select printer options in a compact, organized and user-friendly fashion. Therefore, it would have been obvious to combine Livingston '590 with Perry '190 to obtain the invention as specified in claims 37, 40 and 43.

Referring to **claim 38, 41 and 44**, Perry '190 discloses designating print attributes on the entire setting screen, but does not disclose expressly wherein the setting of the setting screen is displayed on the first designation field as the initial value.

Livingston '590 discloses wherein the print attribute of the print data designated for the print job are displayed as initial values of the partial print attributes (col. 6, lines 5-13, The user can change the print preview image 68 to correspond to a selected page) (col. 3, lines 35-55, The series of blocks show the user which pages have had the selected feature altered from a default setting and also show which pages of the document have had the selected feature set to the setting of the page corresponding to the print preview image).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to set initial exception print settings to the settings of the entire print job. The motivation for doing so would have been to allow the user to select printer options in a compact, organized and user-friendly fashion. Therefore, it would have been

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obvious to combine Livingston '590 with Perry '190 to obtain the invention as specified in claims 38, 41 and 44.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter K. Huntsinger whose telephone number is (571)272-7435. The examiner can normally be reached on 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached on (571)272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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